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DEFICITS AND INTEREST RATES

A Minority Report

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Letter of Transmittal

To Members of the Committee on the Budget

In May of 1983, the Office of the Assistant Secretary for Economic Policy in the U.S. Department of the Treasury issued a study titled, "Government Deficit Spending and its Effects on Prices of Financial Assets." In this study, the Treasury Department in effect claimed that deficits of the size projected over the next three years do not threaten to keep interest rates high and rising and therefore do not threaten economic recovery.

The present study, prepared by Garry J. Schinasi of the minority staff of the budget committee, demonstrates that projected deficits are not only a threat to recovery but also a threat to long term growth prospects because high deficits threaten to keep interest rates high and rising. The study of the minority staff presents convincing evidence that if no action is taken by Congress and the President to cut deficits from present and projected levels, financial markets will be highly pressured; the cost of credit to homebuyers and businessmen will rise. Over the last few months, interest rates have already risen about one and a half percentage points.

Deficits may not appear to be a threat now, with unemployment high and plant capacity utilization low. And indeed consumers are spending despite high interest rates. But businessmen appear reluctant to build their capacities to produce more goods and services. Even today businessmen are fearful of inflation and high and rising interest rates. So far we have a lopsided recovery. With high deficits projected for the outyears, even if recovery lasts to 1985 and 1986, Treasury borrowing will clash with private sector credit demands, drive up interest rates, and abort recovery.

I believe the study prepared by the minority staff of the budget committee will clear the air on this timely and important area of concern. Deficits do matter. If left unchecked, projected deficits will doom the American people to years of low growth, low employment and either high and rising interest rates, high and rising inflation or both.

Sincerely,

Lawton Chiles

LAWTON CHILES
Ranking Minority Member

SUMMARY

This paper reviews a Treasury study entitled, "Government Deficits and Its Effects on the Prices of Financial Assets." The Treasury study claims that high deficits over the next 3 years will not keep interest rates high. The following analysis prepared by the minority staff of the Senate Budget Committee points out errors in the Treasury study and offers evidence that by all standards, projected deficits are unprecedented, and threaten to keep interest rates high and rising. Moreover, projected deficits threaten to abort the recovery and diminish prospects for sustained noninflationary growth.

A Brief Review of the Treasury Study

The Treasury study argues that high deficits do not necessarily cause high and rising interest rates, and therefore will not keep interest rates high over the period 1983–86.

The arguments made *substitute supply-side doctrine, and a* world that mimics simplistic economic models, *for economic reality as it has evolved in recent years.*

The study claims that spending financed by borrowing has the same impact as spending financed by increased taxes. However, taxes typically remove funds available for consumption while Federal borrowing typically withdraws funds from the savings pool available therefore for investment. The composition of gross national product (GNP) and long-term economic growth are affected.

The study focuses only on the relationship between "cyclical deficits" and interest rates (caused by periodic recession). Because interest rates normally fall during a recession, it concludes that high and rising deficits have not been associated with high and rising interest rates. It then claims that the triple-digit deficits projected for the next 3 years will not keep interest rates high and rising, and will therefore not threaten the recovery.

The study ignores the size of the structural deficit and its relationship to financial markets. It does not consider the long-run consequences of high structural deficits on the growth potential of the U.S. economy.

The Treasury study ignores the influence of monetary policy on the relationship between deficits and interest rates. It does not recognize that previous episodes of high Federal deficits were accompanied by accommodative rather than restrictive monetary policy.

The Treasury study ignores the unique nature of current economic conditions confronting policymakers. It ignores the fact that the business community is still fearful of inflation. Any move by the Federal Reserve to accommodate the triple-digit deficits projected

over the next 3 years will reignite inflationary expectations and force long-term interest rates upward.

Conclusions of Staff Study

Our analysis demonstrates quite clearly that over long periods of time, as deficits have increased as a share of GNP, interest rates have also increased. Because deficits threaten to grab an even larger share of GNP in coming years, interest rates threaten to go higher. Projections of economic growth by both CBO and the administration assume interest rates (on 90-day Treasury bills) either remain at current levels (8 to 8½ percent) or fall.

Since 1960, as Federal deficits have increased as a share of GNP, the interest rate on 90-day Treasury bills has also increased (see chart 1).

With the austerity measures taken by the budget conference agreement, Federal deficits will decline to 3 percent of GNP by 1986. If the budget resolution is not adhered to, deficits will still be 4.7 percent of GNP in 1986.

Structural deficits projected over the next 3 years threaten the recovery. If Congress does not adhere to the budget resolution, the structural deficit as a share of GNP will rise from 2.4 percent in 1983 to 3.3 percent in 1986. With the austerity measures taken in the budget resolution, the structural deficit will shrink as a share of GNP from 2.4 percent in 1983 to 1.7 percent in 1986 (see table 1 in text[1]).

The threat of rising interest rates becomes even more apparent when the following factors are considered:

Projected deficits threaten to absorb a historically high percentage of net private saving available for investment. From 1960 to 1979, Federal deficits were on average only about 20 percent of net private savings. High Federal deficits between 1983 and 1986 will absorb an average of 70.7 percent of *net private savings.* In addition, absorption of net private savings by deficits typically falls during the first year of recovery; in 1983 it will use to 97.9 percent.

Projected deficits threaten to absorb a historically high percentage of *total domestic credit.* After averaging only 11.8 percent from 1960 to 1979, Federal deficits will absorb on average 34 percent of total credit from 1983 to 1986.

Projected deficits are so high relative to total nonborrowed reserves in the banking system that the extent to which the Federal Reserve can keep interest rates from rising will be severely limited. During the period 1960–79 Federal deficits averaged about 70 percent of *nonborrowed reserves* while over the period 1983–86, Federal deficits are projected to be 342.9 percent of *nonborrowed reserves.*

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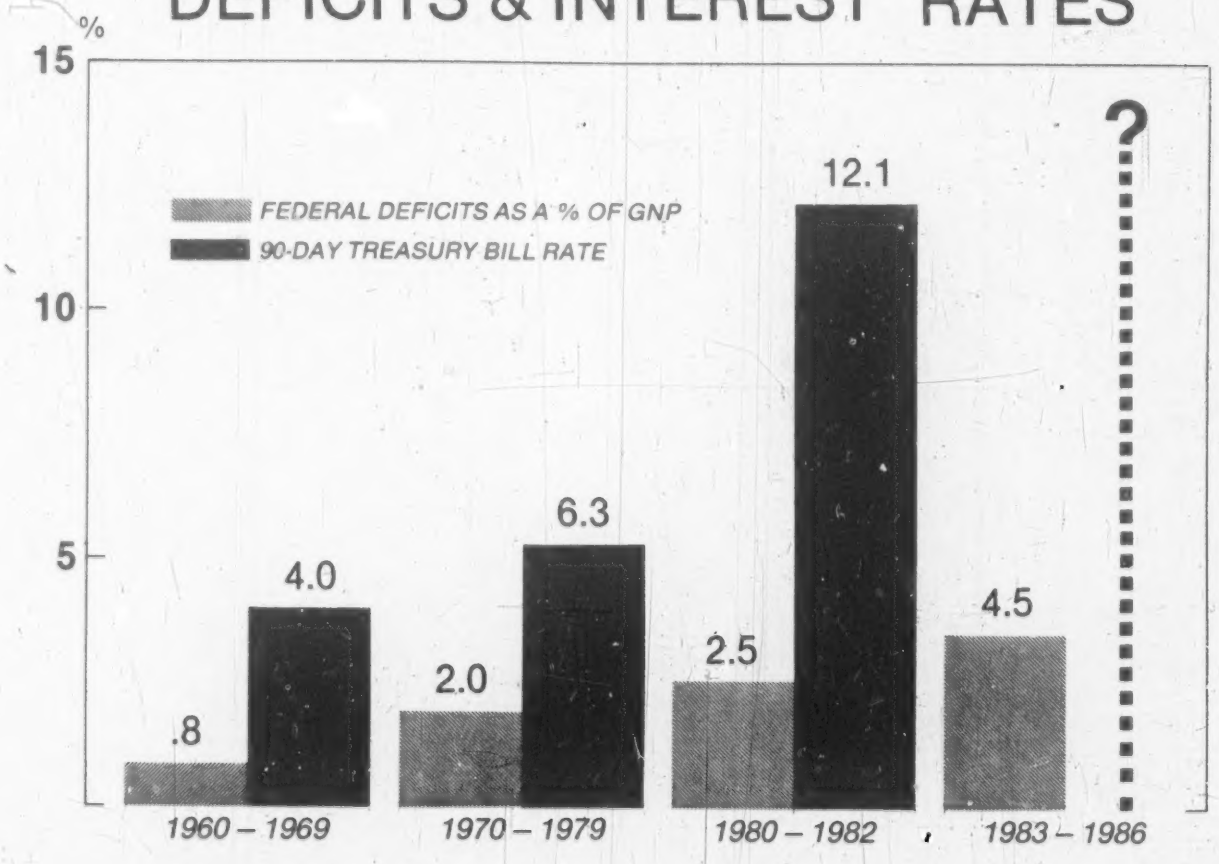
[1] See p. 7.

Chart 1

DEFICITS & INTEREST RATES



A recent study by Data Resources, Inc., has examined the impact of Federal deficits on financial markets. The study *concluded that even now, large Federal deficits are crowding out expenditures on automobiles and new homes by keeping interest rates high.* The study further concluded that a reduction in the Federal budget deficit of $100 billion (3 percent of GNP), shared equally by outlay reductions and increased revenues, would yield the following positive results:

An immediate reduction in long-term interest rates of 2 percentage points; and

A reduction in short-term interest rates of between 4 and 5 percentage points.

There is a body of economic literature that demonstrates within the context of sophisticated econometric models that the size of Federal deficits do have a substantial and well-defined impact in financial markets.

DEFICITS AND INTEREST RATES

An Overview of the Treasury Study

The Department of the Treasury recently prepared a report entitled "Government Deficit Spending and Its Effects on Prices of Financial Assets." The study argues that current and future deficits (such as in the administration's budget) will not keep interest rates high and therefore do not threaten economic recovery in the United States. Although the study addresses other deficit-related issues, the major focus is the effect of deficits on interest rates.

The study treats the issue on both theoretical and empirical levels but neither are rigorously applied. Instead, much of the argument is made within the context of a world that obeys supply-side doctrine, and a world that mimics simplistic economic models. Of the effects deficits have on interest rates, the study concludes the following:

> (1) Spending financed by borrowing has the same impact as spending financed by increased taxes; that is, deficits do not affect interest rates. Therefore, the study assumes the conclusion at the outset.
>
> (2) There is simply no discernible correlation between changes in Government borrowing and changes in either interest rates or exchange rates.
>
> (3) Numerous econometric studies have tried to isolate the effects of deficits and they have failed to establish reliable evidence that Government deficits have a noticeable impact on interest rates.

The first conclusion assumes that individual taxpayers have perfect foresight about the impact of current and future deficits on future tax liabilities. If each taxpayer had this capacity, they would behave as if Government spending were financed through increased taxes rather than through borrowing. No empirical evidence supports these assertions, and only a small number of extreme "rational-expectation" economists take this position seriously. This extreme view consistently and conveniently concludes that monetary and fiscal policy are ineffective.

The second conclusion is based on a chart which displays real interest rates and real deficits on a single graph. Because these two pieces of data usually move in opposite direction over the course of business cycles, the study concludes there is no discernible relationship between deficits and interest rates. The study completely ignores other factors that influence the relationship between deficits and interest rates, such as monetary policy. And the study completely ignores the timing of these dificits and the way they persist. That is, the Treasury study ignores the size of the structural deficit, arguing that it relies on a measure of potential growth which

the study claims is meaningless. The study concludes that deficits do not affect interest rates. However, as chart 1 shows,[1] there is a distinct relationship between the deficit as a percent of GNP and interest rates.

The study merely asserts that deficits do not affect interest rates. No references are made to econometric studies. However, there are economic studies (referred to later) which show that in sophisticated models of the Government securities market, not only do deficits affect interest rates under well-defined conditions (including monetary restraint), but the way the Treasury manages its debt also affects interest rates and financial markets in general (including equity prices).

The Treasury Study Ignores the Unique Nature of Current Economic Conditions

The Treasury study misses the point of the entire debate about the size of the Federal budget deficit and financial markets. In effect, the study sets up a straw man—a straw Senator—who argues that big deficits *per se* will be associated with rising interest rates *regardless* of what else occurs. No serious participant in the current debate, either in political, academic, or business communities has taken this position.

What is argued, by many high-level administration officials (including Martin Feldstein and David Stockman) and both Democrats and Republicans in Congress is that deficits in the $200 billion range, coupled with a tight monetary policy, threaten to keep interest rates and exchange rates high and possibly rising. Even if the Federal Reserve were to pursue an expansionary monetary policy, the fear of inflation by businessmen would send shock waves through financial markets and push interest rates up. There is ample theoretical argument to support the view that rates will rise and the recovery will be threatened. The Treasury study performs heroic and misleading inductive leaps by using *simplistic* interpretations of historical experience as a guide to how events are expected to unfold over the next few years.

Perhaps the most disturbing feature of the Treasury study is that it completely ignores the unique nature of economic conditions now confronting national policymakers. The U.S. economy is recovering from the worst recession in postwar history, a recession in which the unemployment rate surged to 10.8 percent and in which bankruptcies reached unprecedented highs. This recession was in large part caused by a clash between restrictive, anti-inflationary monetary policy and an aggressive supply-side fiscal policy (the administration's tax cut). This clash in effect led to high interest rates and 2½ years of economic stagnation.

The restrictive nature of monetary policy during the period 1979 through mid-1982 was at the time deemed necessary, by a consensus of Americans, to reduce the double-digit levels of inflation and to quell the tide of inflationary expectations that accompanied this high inflation. The policy created double-digit interest rates, and double-digit unemployment rates.

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[1] See p. 3.

Although monetary policy was perhaps too restrictive, inflation is significantly lower and the economy is finally recovering. It appears that a consensus now believes that economic policy should be designed for moderate sustained noninflationary growth. To achieve this objective the Federal Reserve is not likely to become expansionist but they will be more supportive of economic growth.

Never before in the history of U.S. economic policy have such high deficits (high regardless of how they are measured) been associated with a nonaccommodative monetary policy. Claims are made by the Treasury Department that the deficits projected for the budget horizon are cyclical deficits that will be removed by faster economic growth. They argue that these deficits do not matter. But projections by CBO demonstrate that the structural deficit in 1983 will be historically high—2.4 percent of GNP—and threatens to increase in 1984, 1985, and 1986 in both absolute terms and relative to GNP. And in its February budget the administration projected a structural deficit that was 4.7 percent of GNP in 1983, rising to 5.7 percent of GNP in 1986. Recent history has shown that tight monetary policy and loose fiscal policy (deficits in the triple-digit range) create tension in financial markets and high and rising interest rates. High and rising interest rates are a certain threat to economic recovery.

Several unique aspects of current economic conditions threaten to keep interest rates high and rising. The major ingredient in this recipe for the future is the prospect of triple-digit deficits "as far as the eye can see." These deficits are tremendous by most historical standards and will remain high throughout the recovery. They are high relative to net private savings and total domestic credit raised in U.S. credit markets. And they are high relative to existing reserves in the banking system. Even if the Federal Reserve were to follow a high expansionary path, risking the gains on the inflation front, all these factors would limit the extent to which monetary policy can moderate pressure in financial markets. All of these factors limit the extent to which the Federal Reserve can control interest rates. All of these factors threaten the recovery by keeping pressure on financial markets and pushing interest rates higher.

The Severe Nature of the Problem

Federal deficits are not unknown to the American public. Indeed, since 1929, there have been only 9 years in which Federal budget surpluses occurred. And since 1960 there have been surpluses in only 2 years.

TABLE 1.—ACTUAL AND STRUCTURAL DEFICITS [1]

[Annual averages for period indicated]

	In billions of dollars		Percent of GNP	
	Unified budget deficit	Structural deficit	Unified budget deficit	Structural deficit
1960–69	5.7	6.4	0.8	0.8
1970–79	30.2	23.6	1.9	1.5
1980	59.6	38.6	2.3	1.5
1981	57.9	16.4	2.0	.6
1982	110.6	24.2	3.6	.7

TABLE 1.—ACTUAL AND STRUCTURAL DEFICITS [1]—Continued

[Annual averages for period indicated]

	In billions of dollars		Percent of GNP	
	Unified budget deficit	Structural deficit	Unified budget deficit	Structural deficit
Projected deficits without Budget Resolution [1]				
1983	202.0	77.8	6.3	2.4
1984	183.1	90.8	5.2	2.6
1985	183.9	113.7	4.8	2.9
1986	196.2	138.7	4.7	3.3
Projected deficits with Budget Resolution [2]				
1983	203.1	79.0	6.3	2.4
1984	169.9	77.7	4.8	2.2
1985	156.3	86.2	4.0	2.2
1986	127.2	69.8	3.0	1.7

[1] Unified deficits are the CBO baseline effective July 14, 1983.
Structural deficits after 1982 are the structural deficits associated with the February CBO baseline, adjusted for technical reestimates and enacted legislation. The structural deficits assume an unemployment rate of 6 percent, and real GNP growth of 2.5 percent.

[2] Unified deficits are the conference-agreed deficits excluding the reserve. Structural deficits are estimated by adjusting the structural deficits without a budget resolution for policy changes as reflected in the difference between the new CBO baseline and the conference-agreed deficit, excluding the reserve.

By all standards however, the size of the actual deficit in 1982 and projected deficits for 1983–86 are high relative to the American historical experience. For example, during the sixties—a decade in which real growth in GNP averaged 4.2 percent, inflation averaged about 2½ percent, and the rate on 90-day Treasury bills averaged *4.0* percent—the Federal budget deficit constituted only 0.8 percent of GNP per year (see table 1). This ratio climbed to nearly 2 percent in the seventies, a decade in which real growth averaged 3.1 percent per year, inflation averaged 6.6 percent, and interest rates averaged *6.3* percent. Over the 3-year period 1980–82, the Federal budget deficit averaged over 2½ percent of GNP, inflation averaged 8.2 percent, and the interest rate on 90-day Treasury bills averaged 12.1 percent. After rising to 3½ percent of GNP in 1982, the budget deficit in 1983 is projected to be 6.3 percent of GNP. This ratio falls to 4.8 percent in 1984, 4 percent in 1985, and 3 percent in 1986 if the conference agreement passed by both Houses is binding over the 3-year horizon. Even with the austerity measures taken, which cut domestic spending and raised taxes, the deficit as a share of GNP will be nearly four times what it was during the sixties, largely the result of administration policy.

These relatively high deficits threaten to reach beyond 1986 because they are mostly structural. According to CBO, under current policy the structural deficit will be about 71 percent of the deficit in 1986. Without a budget resolution, the structural deficit rises from 2.4 percent of GNP to 3.3 percent. If Congress adheres to the spending and outlay totals in the budget resolution passed by both Houses, the structural deficit declines to 1.7 percent of GNP in 1983, to half of what it would be without a budget.

The Outlook for Interest Rates

These extremely high deficits are likely to exert mounting pressures in financial markets as the economic recovery gains momen-

tum. Since January, when the recovery began, the interest rate on 90-day Treasury bills has increased from 7.8 percent (an average for the month) to the present level of 9.5 percent (July 15, 1983). The size of these deficits threatens to keep interest rates high and rising because such deficits will absorb a large share of net private savings and total domestic credit raised in the United States. These high deficits also limit the extent to which the Federal Reserve can simultaneously control interest rates and inflation.

THE ABSORPTION OF NET PRIVATE SAVINGS AND TOTAL DOMESTIC CREDIT BY THE FEDERAL DEFICIT

Net private savings is a good measure of the funds available to businesses for expanding their stocks of plant and equipment. Net private savings excludes replacement investment, which does not add to productive capacity, and is a measure of the supply of funds available for financing growth potential in the economy. One would expect that the greater the competition for these funds, the higher the interest rates will be.

TABLE 2.—ABSORPTION OF NET SAVINGS BY FEDERAL BUDGET DEFICITS [1]

[Federal deficits as a percent of net private savings]

ACTUAL:		
1960–69	10.0	
1970–79	29.8	
1980	50.8	
1981	49.8	
1982	57.0	
PROJECTIONS:	Conference agreement	Without budget resolution
1983	97.9	97.4
1984	75.0	80.2
1985	63.0	74.0
1986	47.0	73.0

[1] Deficit numbers are from the conference agreement.

In the 20-year period beginning in 1960, Federal deficits absorbed on average about 20 percent of net private savings (see table 2). In 1980 and 1981 the absorption of net private savings by Federal deficits rose to 50 percent on average. It increased to about 58 percent in 1982, the year in which the U.S. economy reached the trough of the worst recession in postwar history. In 1983, the first year of recovery from this recession, the absorption of net private savings by the Federal deficit is projected to rise to 98 percent. This absorption rate remains above 60 percent until 1985 according to even optimistic assumptions about the budget battle and other economic developments.

TABLE 3.—FEDERAL DEFICITS ABSORPTION OF NET PRIVATE SAVING DURING RECOVERIES [1]

[Percent]

Year of trough date	Ratio at trough	Ratio 4 quarters after trough	Ratio 8 quarters after trough
1949	29.7	−79.7	6.3
1954	27.8	−16.6	−18.2
1958	42.0	−4.1	−13.5
1961	13.8	13.0	4.7
1970	28.3	26.7	25.9
1975	50.3	42.5	36.4
1980	48.5	32.5	[2] 83.6

[1] Minus signs indicate surplus as percent of net private savings.
[2] Recession year.

Source: Congressional Budget Office.

Typically, deficits as a share of net private saving are greatest at the trough of cycles. Table 3 examines the extent to which Federal deficits have absorbed net private savings in previous postwar recoveries. The absorption rate has averaged 34.3 percent in the trough of postwar recessions. And in each recovery the absorption rate declined during the first and second years of recovery, making it easier for private enterprise to borrow at reasonable costs. This allowed businesses to expand their productive capacity and contribute to recovery.

During 1982, the deficit absorbed 57 percent of net private savings, a postwar high. And although 1983 is the first year of recovery, the absorption of net private savings by Federal deficits is projected to be 98 percent. While the absorption of net private saving by Federal deficits is projected to decline to 75 percent in 1984 and to 63.5 percent in 1985, it does so slowly and the absorption rates linger at historically high levels.

TABLE 4.—DEFICITS AS PERCENT OF TOTAL DOMESTIC CREDIT [1]

ACTUAL:	
1960–69	8.3
1970–79	15.3
1980	19.2
1981	18.6
1982	33.0

PROJECTIONS:	Conference agreement	Without budget resolution
1983	47.1	46.8
1984	36.1	38.9
1985	30.4	35.7
1986	22.8	35.2

[1] Assumes that after 1982, total domestic credit grows at the same rate as current dollar GNP. Deficits after 1982 are from the conference agreement.

In addition, these large deficits absorb a large share of total credit raised in domestic markets (see table 4). After averaging only 8.3 percent in the sixties and 15.3 percent in the seventies, Federal budget deficits rise to 47 percent of total credit in 1983.

The ratio falls slowly to 30.7 percent in 1985, and to 21.8 percent in 1986.

A crucial year, when interest-sensitive expenditures including business outlays on plant and equipment will hopefully be rising rapidly, is 1985. With the Federal Government absorbing 60 percent of net private savings, and 30.7 percent of total credit in 1985, interest rates could rise and discourage a large portion of this demand, and thereby threaten the recovery.

MONETARY POLICY

The Federal Reserve embarked on an anti-inflationary policy in October 1979 by abandoning its strict adherence to interest rate control and shifting to a policy of monetary aggregate control. This policy of restrictive monetary growth coupled with the extremely stimulative fiscal policy (that is, large deficits) in 1981 drove interest rates to unprecedented highs. Recently, the Federal Reserve has been following a more balanced and easier monetary policy which has allowed M_1 growth to increase and interest rates on Federal funds to decline and remain in a farily narrow range, between 8½ and 9 perc..

One of the factors which determines the Federal Reserve's ability to maintain its anti-inflationary policy and at the same time keep interest rates from rising is the size of the Federal deficit relative to the total level of reserves held by depository institutions. The Federal Reserve controls interest rates and the monetary aggregates by controlling the level of reserves held by depository institutions. If the deficit were small relative to the level of reserves, then the Federal Reserve could absorb a large share of the newly issued Treasury debt by providing reserves to the system without threatening the progress made in lowering inflation. It could provide enough reserves to keep interest rates low and expansion moderate, without creating new inflationary pressures.

TABLE 5.—FEDERAL DEFICITS AS A SHARE OF BANK RESERVES [1]

[Percent]

ACTUAL:	
1960–69	34.8
1970–79	103.7
1980	171.3
1981	154.8
1982	274.4

PROJECTIONS:	Conference agreement	Without budget resolution
1983	467.9	465.2
1984	362.2	390.2
1985	308.8	363.2
1986	232.5	358.7

[1] These ratios are calculated for years after 1982 by using conference agreed deficits without the reserve and assume that nonborrowed reserves expand 8 percent per year after 1982.

During the period from 1960 to 1969, a period of high growth, low interest rates, and low inflation, the Federal deficit was about 35

percent per year of total nonborrowed reserves held by depository institutions (see table 5). During the years from 1975 through 1980, a period in which the Federal Reserve followed a generally expansive policy, the Federal deficit was a much larger share of the total of all reserves: It in fact rose to 103.7 percent of total nonborrowed reserves. This was not only a period of high and rising inflation but also a period of relatively high and rising interest rates. Although there were other factors contributing to the inflation, such as the OPEC price increases and a number of other supply shocks, the inflation was in large part a result of Federal Reserve accommodation. Even so, the Federal deficits were so high that interest rates rose.

In 1981, when interest rates skyrocketed because of the monetary and fiscal policy clash, deficits were 154 percent of nonborrowed reserves. This ratio went even higher in 1982. Interest rates lingered at fairly high levels for the first half of 1982 and then fell dramatically as the Federal Reserve expanded nonborrowed reserves rapidly by 11½ percent in the third quarter and 12¾ percent in the fourth quarter of 1982 (at annual rates).

The deficit in 1982 was 2.7 times as large as the total level of reserves held by depository institutions. With such high deficits, even if the Federal Reserve were to absorb only 10 percent of the new Treasury debt, to do so it would have to expand reserves by 27 percent and the money supply would probably expand even more.

And in 1983, with a deficit of $202.5 billion (projected deficit of Senate resolution), the deficit will be over 4½ times the total level of reserves. This is more than four times the average in the late seventies, a period of high and rising interest rates and high and rising inflation.

With the reappointment of Paul Volcker, excessive money growth is unlikely. And unless money grows rapidly the Federal deficit will exert tremendous pressure in financial markets. This must sooner or later be reflected in the cost of credit.

A Final Note on Some Econometric Evidence

Although there is no consensus about the direct impact of Federal deficits on financial markets and interest rates, a number of large-scale econometric models have well-defined relationships between deficits and interest rates. Among these models are the Federal Reserve's large-scale model (FRB–MIT) and the model of Data Resources, Inc.

Both models have been estimated using U.S. postwar data. Both models indicate that budget deficits have sizable impacts on interest rates, and these impacts are sensitive to monetary policy assumptions.

A recent DRI study [1] has examined the relationship between Federal deficits and interest rates. The study concludes that even now, large Federal budget deficits are crowding out expenditure on automobiles and new homes by keeping interest rates high. In addition, model experiments reveal that a $100 billion reduction in the

[1] "Deficits, Interest Rates, and the Economy," Alen Sinai and Peter Rathjeus, Data Resources, Inc.

Federal deficit (split evenly between spending reductions and tax increases) accompanied by a compensatory monetary policy (that is, unchanged path of money growth) would have the following effects on interest rates:

(a) Immediate reduction in long-term bond yields of 2 percentage points (expectation effect); and

(b) Reduction in short-term rates of between 4 and 5 percentage points, due to an initially weaker economy, and the reduced demand for credit by the Treasury.

Similar results have been reported by CBO in a study [2] that asked the Federal Reserve to run simulations on their model. And recent work by Benjamin Freidman,[3] professor of economics, Harvard University, and Vance Roley [4] that explicitly model the market for Government securities also show that Federal budget deficits affect the term structure of interest rates.

Although the economics profession has reached no consensus, there is evidence that supports the hypothesis that Federal deficits of the magnitude we now face will create an environment of uncertainty and high and possibly rising interest rates. This is particularly true if the desire to keep inflation low is fulfilled.

[2] "Sensitivity of Interest Rates to Changes in Budget Deficits." Staff study, William J. Beeman, Assistant Director for Fiscal Analysis, Congressional Budget Office.

[3] See for example, Freidman, Benjamin M., "The Determination of Long-Term Interest Rates: Implications for Fiscal and Monetary Policies." Journal of Money, Credit, and Banking, XII (May 1980), 331-352, and "Debt Management Policy, Interest Rates and Economic Activity." Mimeo, National Bureau of Economic Research, 1981, and references therein.

[4] Roley, V. Vance. "A Disaggregated Structural Model of the Treasury Securities, Corporate Bond, and Equity Markets: Estimation and Simulation Results." Mimeo, National Bureau of Economic Research, 1980, and "The Effect of Federal Debt Management Policy on Corporate Bond and Equity Yields." Quarterly Journal of Economics, forthcoming.